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AUTHOR Fields, Edward E.
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ABSTRACT

Effective evaluation for curriculum change means that evaluation must become an integral part of instruction and decision-making. This integration begins with the first awareness of a curriculum problem and is maintained until the curriculum change is incorporated into the regular instructional sequence. Six major components of the evaluation process are given and demonstrated through case studies of a reading-mathematics program for elementary schools, and a program to provide quality education for the gifted-talented student. (Author/MLF)

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Definition of Subject

We are to explore a very significant subject, "How to Evaluate Proposed Curriculum Changes." Are children learning? Every publication, at one time or another, will carry an article suggesting that children in today's schools aren't learning. All sorts of so-called evidence is given; supposedly in support of these critics' claims.

Boards of Education hear the complaints of critics, of parents, and oftentimes, pupils, all suggesting that certain curriculums, or portions therein, should be evaluated and marked for possible change. As School Board members, I need not remind you of the proportion of your time which must be devoted to policy making and critical decisions on such matters as financing your districts, budget approvals, reductions in forces, legislation, desegregation, and, if your patrons approve bond issues, there are problems of facilities.

Administrators are also far too busy with efforts to resolve day-to-day problems. Again, it is to be remembered, that many of the problems being addressed, particularly those which seemingly defy resolution, are more often than not the result of faulty or outmoded curriculum.

Back to the Basics

This decade will probably be regarded as the period of the "swing back." "Back to what?" might be the appropriate question. Are schools reflecting the social order of our time? Readin' Ritin', 'Rithmatic, and Rubber Hose ... the essentials ... which somehow are really symptoms that suggest need for an evaluation of curriculum with the objective being to make meaningful changes.

School district ills and troubles are generally traceable to certain faulty elements in the teaching/learning process. Researchers know this ... administrators

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know this ... and teachers know it. School Board members know it also. Since the social revolution of the 1960's, parents of minority children and their children themselves feel that they aren't being taught; that they are denied entry into meaningful curricular areas. Majority parents are saying that their children aren't being taught ... that courses are too easy, watered down, without meaning.

Obviously, the commentary thus far, is a brief revelation of the type of discussion to which citizens, board members, administrators, and teachers are contributors. Evaluation of curricular with the objective to change, places considerable demands on a school board and on the administration.

Why Change?

Perhaps your School Board, for the past year, has become a part of the evaluate and change movement. Reasons most often given are:

1) Proliferation of new subject matter.
2) New processes and teaching techniques.
3) New theories and education practices.
4) Community pressures; variety of sources.
5) Social influences, governmental influences, guidelines and mandates.
6) Restatement of goals and objectives.
7) Levels of achievement.
8) Course sequences.
9) Promotion and graduation requirements.
10) Entry level of employment skills.

The listing could be more definitive as well as a great deal more exhaustive. Sensitivity to such concepts is an early first need in the evaluation process.

Board/Administration - A Productive Working Team

School Board members and school district employees are collectively responsible

for the quality of education in their districts. Both Board Members and the administration must move away from adversary relationships. The evaluation process starts with a productive working team.

School district size, experience of Board Members, administrator perception, are all significant factors in the development of the needed productive Board/Administration working team.

Utilize the uniquenesses of Board Members. Each School Board is likely to have one or more members with backgrounds as teachers or as skilled crafts persons. The Kansas City Board of Education, composed of nine members, has a typical range of formal preparation ... from a Ph.D. to a high school diploma. The occupational range: a retail business proprietor, a banker, a university coordinator, a federal employee, two housewives who were former teachers, and two retired persons. The two who are retired have unique skills ... one was an organizer/supervisor with the post office; the other was an electronics engineer with the Bell Telephone System.

The superintendent is generally regarded as the instructional leader of the school system. In a small system, he may actually be "the leader" as the size of his professional team will be correspondingly small. The evaluative process in small systems may begin with the assistance of Departments of State Education agency, university schools of education, or professional consultant firms.

The comments which follow give a brief summary of changes which occurred in three curriculum areas in the Kansas City Public School District. The three areas are, Reading, Mathematics and the Gifted and Talented program.

The Process of Evaluation of Curriculum for Change

Effective evaluation for curriculum change means that evaluation must become an integral part of instruction and decision making. This integration begins with the first awareness of a curriculum problem and is maintained until the curriculum change is incorporated into the regular instructional sequence.

The process of evaluation includes six major components. (See Figure 1)

1. The Evaluator works with the program planners and operators as a team from the beginning of the proposed curriculum change.
   - The goals, procedures and materials to be used in the program are thoroughly understood by the evaluator.
   - The requirements and constraints of evaluation are equally well understood by the program operators.
2. The evaluation design emphasizes a multi-modal procedure.
   - Curriculum change is usually complicated and difficult; and it is often threatening to teachers.
   - The multi-modal approach deals with complexity effectively and demonstrates to teachers that the evaluation focuses on the curriculum change and <u>not</u> the individual teacher.
   - In the multi-modal procedure, a standardized test may be used but it is never "the" evaluation. At best, it is a useful part of the total evaluation.
   - Interviews, questionnaires, documentation, test development, unobtrusive measures; the multi-modal approach includes several or all of these procedures.
3. Formative evaluation is given high priority in the beginning stages of curriculum change.

- Informal, non-technical feedback is provided regularly to program operators, principals, teachers, top management, the Board of Directors and the community.
- The evaluator identifies areas of strengths; points out potential or actual difficulties; provides reassurance that the curriculum change is underway.
- A broad and constantly up-dated perspective on curriculum-change-in-progress gives support and guidance to program managers.

4. Summative evaluation is the "pay-off" and should answer with precision these questions:
   - Did this curriculum change achieve its primary goals? (One primary goal is always improved achievement and performance by the student.)
   - Did the implementation of this curriculum change prove to be cost-effective in relation to outcomes and to reasonable alternatives?
5. A critique and revision of the evaluative design and its procedures
   - Program managers, program participants, decision-makers and evaluators all contribute.
   - Did the evaluation ask the right questions?
   - Did the evaluation provide adequate answers to these questions?
   - What needs to be added, deleted, and modified to produce an improved evaluation design for next year?
6. The improved evaluation design is implemented
   - Evaluation of a major curriculum change should continue for three to five years to allow the change to become integrated

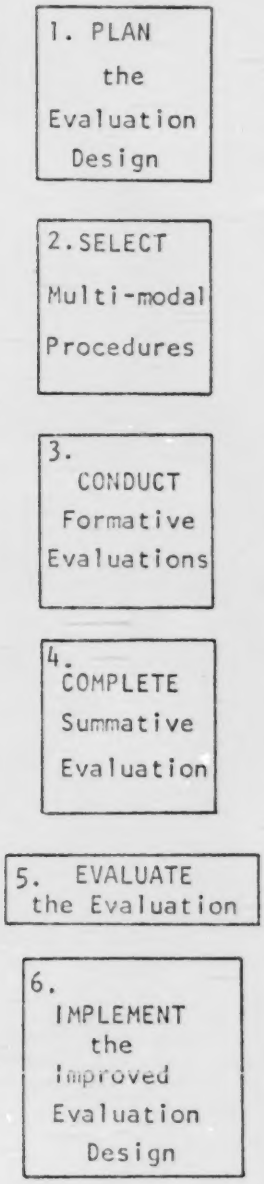
into the regular instructional sequence.

- Each year the evaluation needs a critical review.
- Some curriculum change may require that students be followed for six years or longer to assess the total impact.

FIGURE 1

THE PROCESS OF EVALUATION OF CURRICULUM FOR CHANGE

A SIX-STEP PROCESS


1. PLAN the Evaluation Design
2. SELECT Multi-modal Procedures
3. CONDUCT Formative Evaluations
4. COMPLETE Summative Evaluation
5. EVALUATE the Evaluation
6. IMPLEMENT the Improved Evaluation Design

Procedures in Evaluating the Curriculum for Change

The evaluation process just described best demonstrates its tremendous potential in supporting curriculum for change through case studies of its application. Two case studies will be developed in some detail:

1. Operation Read/Math: a new reading-mathematics program for all elementary schools in the Kansas City, Missouri School District.
2. The program for the Gifted and Talented: a program to provide quality education for the gifted-talented student.

Operation Read/Math: a case study in evaluating the curriculum for change

General awareness of serious difficulties in the Reading and Mathematics curricula for the elementary schools came through the regular evaluation reports and the concerns of the professional staff over the increasing obsolescence of instructional materials. When the instructional leadership responded with new text adoptions and instructional strategies, the Board of Directors gave strong budget support and enthusiastic public approval. Thus, Operation Read/Math as a curriculum for change was launched.

The evaluation of the new curriculum began at this point. Leadership from instruction and evaluation met to plan together. Shortly thereafter, the initial evaluation plans were discussed with the instructional support staff and their suggestions invited.

The evaiuation design for the initial year was multi-modal and consisted of six major components. (See Table One) Each component focused on one major concern of the program manager and all components contributed to the formative and summative evaluations.

Earlier feedback from evaluation had a powerful influence on several facets of the support services. A presentation to the Board of Directors combined the instructional plans and the evaluation strategies into a meaningful whole: Operation Read/Math.

The Board was impressed with the rapid implementation of the program accompanied by a careful evaluation. Both the program managers and the evaluators gained new insights as they participated in an extensive public presentation and responded to questions from the Board.

Constant feedback by the evaluators also help to reduce the anxiety and fears of the support staff and to make their work more effective. For example:

TABLE ONE

OPERATION READ/MATH

An Application of an Evaluation Process to Curriculum for Change

	Evaluation Component	Purpose
I.	Pre/post Testing (Iowa Tests of Basic Skills	To evaluate achievement gains in Reading and Mathematics.
II.	Initiation of a longitudinal Study	To evaluate the long range impact of Operation Read/Math.
III.	Identification of classroom organization used for reading instruction	To assess the relationship between classroom organization and reading achievement.
IV.	Rating of the quality of reading records	To evaluate the extent to which teachers maintained accurate and complete reading records.
V.	Feasibility of developing tests specifically for Operation Read/Math	To analyze the skills tested on the Iowa in comparison to the skills taught in the new curricula.
VI.	Cost-Effectiveness Model	To assess the true cost of achieving and maintaining a specific level of reading achievement.

on-site visits to schools by the evaluators working on Component IV indicated that some teachers were confused about record-keeping procedures. Other teachers did not understand the crucial role of complete and accurate recrods when teaching a highly mobile population. As the evaluators alerted the support staff to this situation, immediate modifications were made in the teacher training schedules.

As a consequence, the final examination of reading records showed a much improved situation.

As the initial year of implementation moved to a close, summative evaluation was completed. The final evaluation results for Component V provide an effective example of how the perspective of the support staff was changed. The instructional staff challenged the use of the Iowa as a measure of achievement, thinking that the skills tested on the Iowa were not a good match for those emphasized in Operation Read/Math. The feasibility study conducted by the evaluators indicated an excellent match (over 90 per cent) between skills tested on the Iowa and skills taught in Operation Read/Math. These data helped the evaluators in that the time and expense of possible test development proved unnecessary.

Component III also brought unexpected but useful results to the program managers. Their intuitive feelings were that some forms of classroom organization were more supportive of reading achievement than others. The evaluation showed that little, if any, relationship existed between the two and that efforts to promote one organization rather than another were not necessary.

The Program for the Gifted and Talented existed in the District for some years. By the early seventies, serious program difficulties emerged including an investigation be HEW. The value of a curriculum especially designed for the gifted and talented student was recognized and supported by top administration and the Board. Consequently, an intensive revitalization effort was mounted. Part of this revitalization process made extensive use of evaluation.

One of the key concerns in the revitalized program was the design of fair and improved selection procedures. The older program relied on one aptitude measure and had resulted in some classes which lacked racial balance. Also of concern were the test-taking procdures themselves and the serious difficulties they pose for many educationally disadvanted students.

A cooperative planning effort was initiated by the leadership of Special Education, the consultant for the Gifted and Talented Program, and the Coordinator of Testing Services. Over a three-year period, the selection procedures for the Gifted and Talented Program were constantly improved and extended. (See Figure Two) Now, instead of one entrance for the student to the program, many are available.

The devlopment of both the teacher and peer nominations removed a bottle-neck for those students whose talents seldom come through on a paper-and-pencil test. One form of the teacher nomination is for use with disadvantaged students and recognizes that some potentially Gifted and Talented students may express their talents in socially unacceptable ways. In difficult life circumstances, giftedness may be expressed negatively as well as positively.

The peer nomination procedure which is now under devlopment is closely related to well-known sociometric techniques and appears promising. Students are keen evaluators and their insights need to be utilized.

At this time, the program operators are asking the help of the evaluators to answer these questions:

1. Do students admitted to the Gifted and Talented Program on the basis of teacher nomination do as well as those admitted by achievement or aptitude tests?
2. What are the potentials of peer nominations in identifying Gifted and Talented students who might be missed by other procedures?

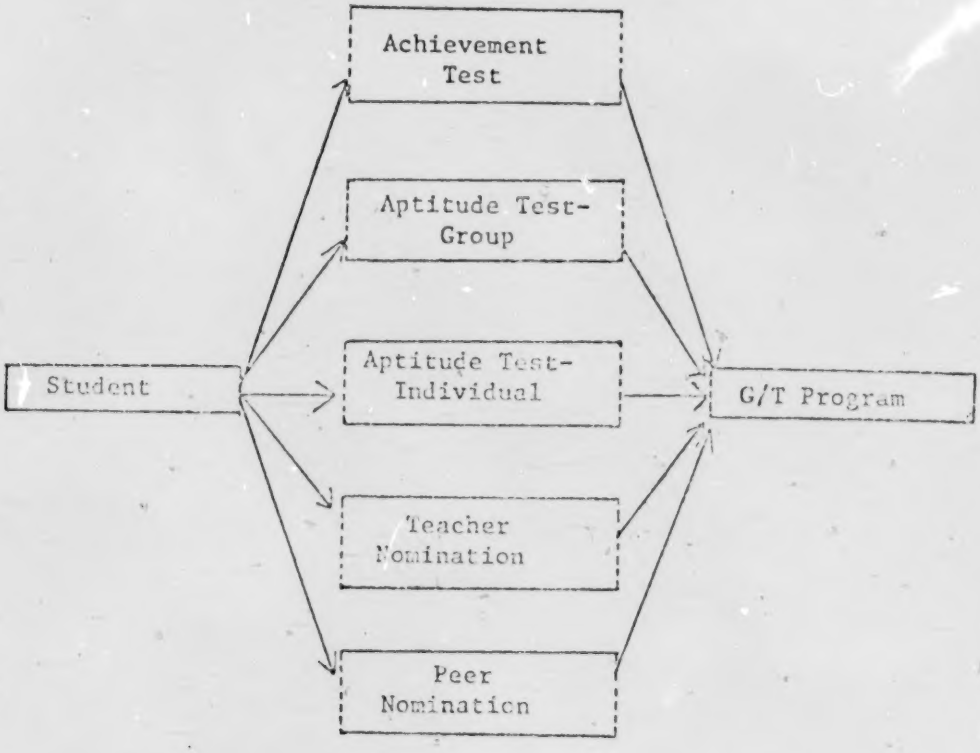
As answers for these questions are found, they will be shared with program managers.

With the proposed expansion of the Gifted and Talented Program at the secondary level, other important concerns will emerge. Thus, the teams from instruction and evaluation will continue to cooperate in solving instructional problems and maintaining a curriculum for change in our changing society.

FIGURE TWO

GIFTED AND TALENTED PROGRAM

Many Entrances for the Student through Evaluation of Curriculum for Change



SOME THINGS TO BE DONE

1. Many Boards work in committees. Board as a whole should act on any plans.
2. Use Board Member strengths.
3. Question the Superintendent. Keep in mind that he has daily contact with a bevy of skilled specialists. He is your resource.
4. Question diagrams and flow charts.
5. Don't accept unexplained words or phrases ... professional language for education can be as confusing as is that of any other specialized group.
6. Schedule work sessions for times that are best for the Board. Keep in mind that fatigue paralyzes the mind; tires the seat of understanding.
7. Questions should elicit responses which will clearly indicate expected results for children.
8. Board should be part of deliberation on setting of goals and objectives.
9. Request systems for monitoring and for formal evaluations.
10. Know the cost of proposed changes ...

    Will there be staff changes?

    Will there be need for new equipment or new materials?

    Will present facilities be adequate?

    Will there by workshops and/or other means of staff development?

    Will there be requirements for release time for parent-teacher-principal conferences?
11. Know your community and the reactions.
12. Formulate needed policy...establish a record...use media.